### EQUIPMENT LIST "A"

B. EQUI	PMENT TO BE FURNISHED BY SHA AND INSTALLED BY	CONTRACTOR	
CATAGOR` CODE	DESCRIPTION	UNIT	QUANTITY
900000 971016	VIDEO DETECTION INTERFACE EQUIPMENT EIGHT PHASE (FULLY ACTUATED) CABINET	EA	1
973023	AND CONTROLLER - POLE MOUNT SHEET ALUMINUM SIGNS	EA SF	1 30.5
	1 - R3-5(L) (30"X36") - SPAN WIRE MOUNT 1 - R3-6 (MOD) (42"X36") - SPAN WIRE MOUNT		

1 - R3 - 1(R) (30"X30") - SPAN WIRE MOUNT1 - R3 - 1(L) (30"X30") - SPAN WIRE MOUNT

#### FOHIPMENT LIST "R"

	<u> </u>		
CATAGO	B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE	E CONTRAC	TOR.
CODE	DESCRIPTION	UNIT	QUANTITY
203030 585625	TEST PIT EXCAVATION 24 INCH WHITE PREFORMED	CY	2
802501	THERMOPLASTIC PAVEMENT MARKING LINES NO. 6 AWG STRANDED BARE COPPER GROUND	LF	70
	WIRE	LF	50 <del>*</del>
813015 816005	INSTALL OVERHEAD SIGN CONTROL CABLE, 250 FT. VIDEO	SF	30.5
	DETECTION CAMERA TO CONTROLLER	EΑ	3
800000 837001	40 FT. CLASS II WOOD STRAIN POLE WITH BACKGUY GROUND ROD — 3/4 INCH DIAMETER X 10 FT.	EΑ	2
	LENGTH	EΑ	2
805140	THE TOTAL THE TO	LF	60
	UTILITY SERVICE EQUIMENT 120/240 VOLTS, 60 AMPS	EΑ	1
860284	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION		
	SPAN WIRE MOUNT	EΑ	23
861107	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	LF	600 <del>  </del>
861108		LF	720 <del>     </del>
861116	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG)	LF	535 <del>米</del>
810010	ELECTRICAL CABLE - 1 CONDUCTOR (NO. 4 AWG)		
000101	THHN/THWN	LF	15
866104	20 FT. LIGHTING ARM FOR SIGNAL STRUCTURE	EΑ	2
831010	250 WATT HIGH PRESSURE SODUIM LUMINAIRE WITH	c	_
916001	PHOTOCELL VIDEO DETECTION OF THE PARTY OF TH	EΑ	2
816001	VIDEO DETECTION CAMERA	EΑ	<u>ي</u>
869101	1/4 IN. SPAN WIRE	LF	155 💥
	3/8 IN. SPAN WIRE	LF	300 <del>*</del>
805018 871201	3 INCH ELECTRICAL CONDUIT — GALVANIZED RISER	LF	40
805050		EΑ	1
003030	3 IN. WEATHERHEAD	EΑ	I

\* QUANTITY HAS BEEN INCREASED FOR USE IN PHASE 3

# SPECIAL NOTES:

- 1. SOME MATERIALS AND EQUIPMENT WILL BE RE-USED DURING THE M.O.T. PHASES. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND STORAGE OF SUCH ITEMS. COST SHALL BE INCIDENTAL TO THE PAY ITEM REMOVE AND SALVAGE OF EXISTING EQUIPMENT. ANY MATERIALS AND EQUIPMENT DAMAGED BY THE REMOVAL OR STORAGE SHALL BE REPLACED AT THE CONTRACTORS EXPENSE.
- 2. CABLES SHALL NOT BE CUT DURING WIRING INSTALLATION. ALL EXTRA/UNUSED CABLES SHALL BE COILED FOR RE-USE DURING OTHER M.O.T. PHASES.

## EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND PICKED UP BY THE S.H.A. THE EXISTING BASE MOUNTED CONTROLLER, VIDEO DETECTION CAMERAS, AND ALL ASSOCIATED EQUIPMENT TO BE REMOVED BY THE CONTRACTOR SHALL BE PICKED UP BY THE S.H.A. ALL OTHER MATERIALS AND EQUIPMENT REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR. THE CONTRACTOR SHALL CONTACT MR. ED RODENHIZER 72 HOURS PRIOR TO CONSTRUCTION.

## INTERSECTION OPERATION

DURING THIS PHASE THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE FULL-TRAFFIC-ACTUATED MODE WITH AN EXCLUSIVE-PERMISSIVE LEFT TURN PHASE FOR SOUTHBOUND MD 139.

# M.O.T. PHASE 2B AND 2C SIGNAL STRUCTURE

# EQUIPMENT LIST "A"

B. EQUIPMENT TO BE FURNISHED BY SHA AND INSTALLED BY CONTRACTOR. CATAGORY DESCRIPTION UNIT QUANTITY CODE 30.5 973023 SHEET ALUMINUM SIGNS 1 - R3 - 5(L) (30"X36") - SPAN WIRF MOUNT1 - R3-6 (MOD) (42"X36") - SPAN WIRE MOUNT 1 - R3-1(R) (30"X30") - SPAN WIRE MOUNT1 - R3-1(L) (30"X30") - SPAN WIRE MOUNT

### EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR, CATAGORY DESCRIPTION UNIT QUANTITY CODE 203030 TEST PIT EXCAVATION CY 585625 24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES 585620 NO. 6 AWG STRANDED BARE COPPER GROUND WIRE LF 90 813015 INSTALL OVERHEAD SIGN 30.5 800000 RELOCATE CONTROL CABLE, 250 FT. VIDEO DETECTION CAMERA TO CONTROLLER EΑ 816010 CONTROL CABLE, 500 FT. VIDEO DETECTION CAMERA TO CONTROLLER 800000 40 FT. CLASS II WOOD STRAIN POLE WITH BACKGUY 837001 GROUND ROD - 3/4 INCH DIAMETER X 10 FT. LENGTH 860284 12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION SPAN MOUNT 21 861107 ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG) 680 861116 ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG) 470 800000 RELOCATE 20 FT, LIGHTING ARM FOR SIGNAL STRUCTURE EΑ 800000 RELOCATE VIDEO DETECTION CAMERA EΑ 869101 1/4 IN. SPAN WIRE 110

# INTERSECTION OPERATION

LF

230

DURING THIS PHASE THE INTERSECTION WILL OPERATE IN A NEMA THREE-PHASE FULL-TRAFFIC-ACTUATED MODE WITH CONCURRENT MOVEMENTS FOR EASTBOUND AND SOUTHBOUND MD 139.

# CONTACT PERSONS FOR DISTRICT #4 ARE AS FOLLOWS:

MS. ERIN KUHN MR. MICHAEL PASQUARIELLO ASSISTANT DISTRICT ENGINEER-TRAFFIC UTILITY ENGINEER PHONE: (410)321-2781 PHONE: (410)321-2841

MR. STEVE MARCISZEWSKI ASSISTANT DISTRICT ENGINEER-MAINTENANCE PHONE: (410)321-2761

#### CONTACT PERSONS FOR OOTS ARE AS FOLLOWS:

MR. RICHARD L. DAFF, SR. CHIEF, TRAFFIC OPERATIONS ASSISTANT DIVISION CHIEF DIVISION

869102 3/8 IN. SPAN WIRE

MR. ROBERT SNYDER TRAFFIC OPERATIONS (410)787-7630

PHONE: (410)787-7630 MR. ED RODENHIZER CHIEF, SIGNAL OPERATIONS

(410)787-7650

MR. EUGENE BAILEY CHIEF, SIGN OPERATIONS (410)787-7676

THE POWER COMPANY

GAS & ELECTRIC NEW BUSINESS DEPT. (410) 850-4620

#### M.O.T. PHASE 3A AND 3B SIGNAL STRUCTURE

# EQUIPMENT LIST "A"

B. EQUIPMENT TO BE FURNISHED BY SHA AND INSTALLED BY CONTRACTOR. CATAGORY DESCRIPTION UNIT QUANTITY CODE 973023 SHEET ALUMINUM SIGNS 1 - R3-6 (1) (30"X36") - SPAN WIRE MOUNT 1 - R3 - 1(R) (30"X30") - SPAN WIRE MOUNT

### EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR. CATAGORY DESCRIPTION UNIT QUANTITY CODE 203030 TEST PIT EXCAVATION CY 585625 24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES 801004 CONCRETE FOR SIGNAL FOUNDATION 9.4 800000 INSTALL NO. 6 AWG STRANDED BARE COPPER GROUND WIRE LF 20 10 805135 3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED EΑ 2 811001 FURNISH AND INSTALL ELECTRICAL HANDHOLE 813010 INSTALL OVERHEAD SIGN 35 816010 CONTROL CABLE, 500 FT. VIDEO DETECTION CAMERA TO CONTROLLER 800000 RELOCATE CONTROL CABLE, 500 FT. VIDEO DETECTION CAMERA TO CONTROLLER 818041 STEEL POLE WITH A SINGLE 60 FT, MAST ARM 818052 STEEL POLE WITH A SINGLE 70 FT. MAST ARM 837001 GROUND ROD - 3/4 INCH DIAMETER X 10 FT. LENGTH 860200 INSTALL SIGNAL HEADS SPAN MOUNT 860260 INSTALL SIGNAL HEADS POLE MOUNT 800000 INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG) 800000 INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG) 270 800000 INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG) 866104 20 FT. LIGHTING ARM FOR SIGNAL STRUCTURE 831010 250 WATT HIGH PRESSURE SODIUM LUMINAIRE WITH PHOTOCELL EA 800000 RELOCATE VIDEO DETECTION CAMERA 800000 INSTALL 1/4 IN. SPAN WIRE 155 800000 INSTALL 3/8 IN. SPAN WIRE LF 300

#### EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND PICKED UP BY THE S.H.A.

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# INTERSECTION OPERATION

DURING THIS PHASE THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE FULL-TRAFFIC-ACTUATED MODE WITH AN EXCLUSIVE-PERMISSIVE LEFT TURN PHASE FOR SOUTHBOUND MD 139.

#### PHASES | - 3B SIGNAL STRUCTURES



STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF TRAFFIC & SAFETY

TRAFFIC ENGINEERING DESIGN DIVISION MD 139 (CHARLES ST.) AND 1-695 EB

OFF-RAMP TOWSON, MARYLAND

GENERAL INFORMATION SHEET I

Rummel, Klepper & Kahl, LLP Consulting Engineers Since 1923 81 Mosher Street Baltimore, Maryland 21217 www.rkk.com

SCALE NONE DATE MAY 2008 CONTRACT NO. DESIGNED BY MLH COUNTY BALTIMORE DRAWN BY MLH CHECKED BY DAE FAP NO. SEE TITLE SHEET TOD NO.

PLOTTED: Monday, May 12, 2008 AT 08:48 AM
FILE: M:\projects\2003\03136\_obd\03136-37\CADD\Traffic Plans\Signal Plans\pGl1-MD139@I-695 off ramp\_ph1- 3B.dgn

Ph: 410.728.2900 Fax: 410.728.3160

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TS NO. 4162C-GI DRAWING SP-09 OF 15 SHEET NO. 280 OF